

## CLAIMS

What is claimed is:

1. A magnetic field sensor comprising a few alternating layers of magnetoresistive and piezoelectric material.
- 5 2. A magnetic field sensor comprising cantilevered layers of magnetoresistive and piezoelectric material.
3. A magnetic field sensor comprising a magnetoresistive substrate with piezoelectric layers on the substrate.
- 10 4. A magnetic recording read head comprising at least one magnetoresistive layer and at least one piezoelectric layer.
5. A magnetic random access memory comprising piezoelectric and magnetoresistive layers.
- 15 6. A sensor system for detecting rotor movement comprising a magnetic field sensor having magnetoresistive and piezo electric materials.
- Sub A1 7. A magnetic random access memory described in Claim 6, wherein the rotor is used as a flow speed detector.

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C1